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OM protein - protein search, using sw model

Run on: July 24, 2003, 13:18:11 ; Search time 18 Seconds  
(without alignments)  
545.340 Million cell updates/sec

Title: US-09-897-322-2

Perfect score: 1268

Sequence: 1 MERCPGLVLYALVVVLGL.....QRCGWIPQYPIIIECKKSC 232

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

Issued\_Patents\_AA:\*  
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2: /cgn2\_6/ptodata/1/iaa/5B\_COMB.pep.\*  
3: /cgn2\_6/ptodata/1/iaa/6A\_COMB.pep.\*  
4: /cgn2\_6/ptodata/1/iaa/6B\_COMB.pep.\*  
5: /cgn2\_6/ptodata/1/iaa/PCTUS\_COMB.pep.\*  
6: /cgn2\_6/ptodata/1/iaa/backfiles.pep.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1268	100.0	232	2	US-08-485-721-2
2	1268	100.0	232	2	US-08-392-935-2
3	1268	100.0	232	3	US-08-897-236-2
4	1268	100.0	232	4	US-09-167-874-2
5	1268	100.0	232	4	US-09-500-253B-2
6	1268	100.0	232	5	PCT-US93-08326-2
7	1258	99.2	232	3	US-08-897-236-11
8	1258	99.2	232	3	US-09-167-874-11
9	1258	99.2	232	4	US-09-500-253B-11
10	1195	94.2	449	3	US-08-897-236-23
11	1195	94.2	449	4	US-09-500-253B-23
12	949.5	74.9	222	2	US-08-485-721-9
13	949.5	74.9	222	2	US-08-392-935-9
14	949.5	74.9	222	5	PCT-US93-08326-9
15	503	39.7	87	2	US-08-485-721-11
16	503	39.7	87	2	US-08-392-935-11
17	503	39.7	87	5	PCT-US93-08326-11
18	111.5	8.8	635	4	US-09-252-991A-21514
19	93.5	7.4	372	3	US-08-586-165-5
20	92.5	7.3	306	4	US-09-252-991A-23829
21	92	7.3	538	4	US-09-309-572-12
22	92	7.3	1312	4	US-09-554-572-26
23	92	7.3	1737	4	US-09-309-572-13
24	90.5	7.1	483	1	US-08-194-338-7
25	90.5	7.1	623	3	US-09-347-801-4
26	89	7.0	632	4	US-09-252-991A-32280
27	88.5	7.0	371	3	US-08-586-165-3

28	88.5	7.0	979	3	US-08-870-529-2	Sequence 2, Appli
29	88.5	7.0	979	4	US-09-544-794-2	Sequence 2, Appli
30	87.5	6.9	399	4	US-09-252-991A-25039	Sequence 25039, A
31	87.5	6.9	1368	4	US-09-967-908A-2	Sequence 2, Appli
32	87	6.9	14	1	US-08-297-633A-3	Sequence 3, Appli
33	87	6.9	14	2	US-08-485-721-3	Sequence 3, Appli
34	87	6.9	14	2	US-08-392-935-3	Sequence 3, Appli
35	87	6.9	14	3	US-08-897-236-3	Sequence 3, Appli
36	87	6.9	14	3	US-09-167-874-3	Sequence 3, Appli
37	87	6.9	14	4	US-09-500-253B-3	Sequence 3, Appli
38	87	6.9	14	5	PCT-US93-08325-3	Sequence 3, Appli
39	87	6.9	14	5	PCT-US93-08326-3	Sequence 3, Appli
40	86	6.8	625	3	US-09-347-801-18	Sequence 18, Appl
41	85.5	6.7	315	4	US-08-957-351-27	Sequence 27, Appl
42	85.5	6.7	461	4	US-09-252-991A-24717	Sequence 24717, A
43	85	6.7	1621	1	US-08-242-677-2	Sequence 2, Appli
44	84.5	6.7	342	4	US-09-252-991A-23038	Sequence 23038, A
45	84	6.6	896	4	US-09-252-991A-19758	Sequence 19758, A

## ALIGNMENTS

RESULT 1  
US-08-485-721-2  
; Sequence 2, Application US/08485721  
; Patent No. 5821124  
; GENERAL INFORMATION:  
; APPLICANT: Regeneron Pharmaceuticals, Inc. and  
; APPLICANT: Regents of the University of California  
; TITLE OF INVENTION: Dorsal Tissue Affecting Factor and  
; TITLE OF INVENTION: Compositions  
; NUMBER OF SEQUENCES: 24  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Regeneron Pharmaceuticals, Inc.  
; STREET: 777 Old Saw Mill River Road  
; CITY: Tarrytown  
; STATE: New York  
; COUNTRY: U.S.A.  
; ZIP: 10591  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/485,721  
; FILING DATE: 07-JUN-1995  
; CLASSIFICATION: 435  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: 08/392,935  
; FILING DATE: 02-SEP-1993  
; APPLICATION NUMBER: PCT/US93/08326  
; FILING DATE: 02-SEP-1993  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Kempler Ph.D., Gail M.  
; REGISTRATION NUMBER: 32,143  
; REFERENCE/DOCKET NUMBER: Reg 132  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 914-347-7000  
; TELEFAX: 914-347-2113  
; INFORMATION FOR SEQ ID NO: 2:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 232 amino acids  
; TYPE: amino acid  
; TOPOLOGY: unknown  
; MOLECULE TYPE: protein  
; US-08-485-721-2

Query Match 100.0%; Score 1268; DB 2; Length 232;  
Best Local Similarity 100.0%; Pred. No. 3e-126;  
Matches 232; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MERCPSLGVTLYALVVVLGLRATPAGQGHYLRHAPSDNPLVDLIEHPDPIFDPKKD 60  
Db 1 MERCPSLGVTLYALVVVLGLRATPAGQGHYLRHAPSDNPLVDLIEHPDPIFDPKKD 60  
QY 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120  
Db 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120  
QY 121 KGLEFSEGLAOGKKORLSKKLRKQLMWLWSQTCFVLYAWNDLGSFWRPVRVKGSCFS 180  
Db 121 KGLEFSEGLAOGKKORLSKKLRKQLMWLWSQTCFVLYAWNDLGSFWRPVRVKGSCFS 180  
QY 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPYPIIIECKKSC 232  
Db 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPYPIIIECKKSC 232

## RESULT 2

US-08-392-935-2  
; Sequence 2, Application US/08392935  
; Patent No. 5843775  
; GENERAL INFORMATION:  
; APPLICANT: Regeneron Pharmaceuticals, Inc. and  
; APPLICANT: Regents of the University of California  
; TITLE OF INVENTION: Dorsal Tissue Affecting Factor and  
; TITLE OF INVENTION: Compositions  
; NUMBER OF SEQUENCES: 24  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Regeneron Pharmaceuticals, Inc.  
; STREET: 777 Old Saw Mill River Road  
; CITY: Tarrytown  
; STATE: New York  
; COUNTRY: U.S.A.  
; ZIP: 10591  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/392,935  
; FILING DATE:  
; CLASSIFICATION: 435  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: PCT/US93/08326  
; FILING DATE: 02-SEP-1993  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Kempler Ph.D., Gail M.  
; REGISTRATION NUMBER: 32,143  
; REFERENCE/DOCKET NUMBER: Reg 132  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 914-347-7000  
; TELEFAX: 914-347-2113  
; INFORMATION FOR SEQ ID NO: 2:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 232 amino acids  
; TYPE: amino acid  
; TOPOLOGY: unknown  
; MOLECULE TYPE: protein  
US-08-392-935-2

Query Match 100.0%; Score 1268; DB 2; Length 232;  
Best Local Similarity 100.0%; Pred. No. 3e-126;  
Matches 232; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
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Db 1 MERCPSLGVTLYALVVVLGLRATPAGQGHYLRHAPSDNPLVDLIEHPDPIFDPKKD 60  
QY 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120  
Db 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120

QY 121 KGLEFSEGLAOGKKORLSKKLRKQLMWLWSQTCFVLYAWNDLGSFWRPVRVKGSCFS 180  
Db 121 KGLEFSEGLAOGKKORLSKKLRKQLMWLWSQTCFVLYAWNDLGSFWRPVRVKGSCFS 180  
QY 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPYPIIIECKKSC 232  
Db 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPYPIIIECKKSC 232

## RESULT 3

US-08-897-236-2  
; Sequence 2, Application US/08897236A  
; Patent No. 6075007  
; GENERAL INFORMATION:  
; APPLICANT: Regeneron Pharmaceuticals, Inc.  
; TITLE OF INVENTION: Modified Dorsal Tissue Affecting Factor and Composition  
; FILE REFERENCE: REG 133  
; CURRENT APPLICATION NUMBER: US/08/897,236A  
; CURRENT FILING DATE: 1997-07-17  
; NUMBER OF SEQ ID NOS: 23  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 2  
; LENGTH: 232  
; TYPE: PRT  
; ORGANISM: human  
US-08-897-236-2

Query Match 100.0%; Score 1268; DB 3; Length 232;  
Best Local Similarity 100.0%; Pred. No. 3e-126;  
Matches 232; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120  
Db 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120  
QY 121 KGLEFSEGLAOGKKORLSKKLRKQLMWLWSQTCFVLYAWNDLGSFWRPVRVKGSCFS 180  
Db 121 KGLEFSEGLAOGKKORLSKKLRKQLMWLWSQTCFVLYAWNDLGSFWRPVRVKGSCFS 180  
QY 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPYPIIIECKKSC 232  
Db 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPYPIIIECKKSC 232

## RESULT 4

US-09-167-874-2  
; Sequence 2, Application US/09167874  
; Patent No. 6277593  
; GENERAL INFORMATION:  
; APPLICANT: Valenzuela et al.  
; TITLE OF INVENTION: DORSAL TISSUE AFFECTING FACTOR AND COMPOSITIONS  
; FILE REFERENCE: REG132-B  
; CURRENT APPLICATION NUMBER: US/09/167,874  
; CURRENT FILING DATE: 1998-10-07  
; EARLIER APPLICATION NUMBER: 08/485,721  
; EARLIER FILING DATE: 1995-07-06  
; EARLIER APPLICATION NUMBER: 08/392,935  
; EARLIER FILING DATE: 1995-09-22  
; EARLIER APPLICATION NUMBER: PCT/US93/08326  
; EARLIER FILING DATE: 1993-09-02  
; EARLIER APPLICATION NUMBER: 07/957,401  
; EARLIER FILING DATE: 1992-10-06  
; EARLIER APPLICATION NUMBER: 07/950,410  
; EARLIER FILING DATE: 1992-09-23  
; EARLIER APPLICATION NUMBER: 07/939,954  
; EARLIER FILING DATE: 1992-09-03  
; NUMBER OF SEQ ID NOS: 22  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 2

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; LENGTH: 232
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-167-874-2

Query Match      100.0%; Score 1268; DB 3; Length 232;
Best Local Similarity 100.0%; Pred. No. 3e-126;
Matches 232; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MERCPSLGVTLVYALVVLGLRATPAGQGHYLRHAPSDNLPVLDLIEHPDPIDPKED 60
DB 1 MERCPSLGVTLVYALVVLGLRATPAGQGHYLRHAPSDNLPVLDLIEHPDPIDPKED 60

QY 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120
DB 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120

QY 121 KGLEFSEGLAQKKQLRKLQWLWLSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
DB 121 KGLEFSEGLAQKKQLRKLQWLWLSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180

QY 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCQRRGQRCGWIPQIPISECKCSC 232
DB 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCQRRGQRCGWIPQIPISECKCSC 232

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RESULT 5
US-09-500-253B-2
; Sequence 2, Application US/09500253B
; Patent No. 650640
; GENERAL INFORMATION:
; APPLICANT: Regeneron Pharmaceuticals, Inc.
; TITLE OF INVENTION: Modified Dorsal Tissue Affecting Factor and Composition
; FILE REFERENCE: REG 133-Z
; CURRENT APPLICATION NUMBER: US/09/500,253B
; CURRENT FILING DATE: 2000-02-08
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: Patent in version 3.0
; SEQ ID NO 2
; LENGTH: 232
; TYPE: PRT
; ORGANISM: human
US-09-500-253B-2

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Query Match      100.0%; Score 1268; DB 4; Length 232;
Best Local Similarity 100.0%; Pred. No. 3e-126;
Matches 232; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MERCPSLGVTLVYALVVLGLRATPAGQGHYLRHAPSDNLPVLDLIEHPDPIDPKED 60
DB 1 MERCPSLGVTLVYALVVLGLRATPAGQGHYLRHAPSDNLPVLDLIEHPDPIDPKED 60

QY 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120
DB 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120

QY 121 KGLEFSEGLAQKKQLRKLQWLWLSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
DB 121 KGLEFSEGLAQKKQLRKLQWLWLSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180

QY 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCQRRGQRCGWIPQIPISECKCSC 232
DB 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCQRRGQRCGWIPQIPISECKCSC 232

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RESULT 6
PCR-US93-08326-2
; Sequence 2, Application PC/TUS9308326
; GENERAL INFORMATION:
; APPLICANT: Valenzuela, et al.
; TITLE OF INVENTION: Dorsal Tissue Affecting Factor and
; COMPOSITIONS
; NUMBER OF SEQUENCES: 24

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; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Regeneron Pharmaceuticals, Inc.
; STREET: 777 Old Saw Mill River Road
; CITY: Tarrytown
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10591
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; APPLICATION NUMBER: PCT/US93/08326
; FILING DATE: 02-SEP-1993
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Kempler Ph.D., Gail M.
; REGISTRATION NUMBER: 32,143
; REFERENCE/DOCKET NUMBER: Reg 132
; TELEPHONE: 914-347-7000
; TELEFAX: 914-347-2113
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 232 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
; PCT-US93-08326-2

Query Match      100.0%; Score 1268; DB 5; Length 232;
Best Local Similarity 100.0%; Pred. No. 3e-126;
Matches 232; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MERCPSLGVTLVYALVVLGLRATPAGQGHYLRHAPSDNLPVLDLIEHPDPIDPKED 60
DB 1 MERCPSLGVTLVYALVVLGLRATPAGQGHYLRHAPSDNLPVLDLIEHPDPIDPKED 60

QY 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120
DB 61 LNETLLRSLGHHYDPGFMTSPEDRPGGGGGAAGAEADLAELDQLLRQPSGAMPSEI 120

QY 121 KGLEFSEGLAQKKQLRKLQWLWLSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
DB 121 KGLEFSEGLAQKKQLRKLQWLWLSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180

QY 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCQRRGQRCGWIPQIPISECKCSC 232
DB 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCQRRGQRCGWIPQIPISECKCSC 232

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RESULT 7
US-08-897-236-11
; Sequence 11, Application US/08897236A
; Patent No. 6075007
; GENERAL INFORMATION:
; APPLICANT: Regeneron Pharmaceuticals, Inc.
; TITLE OF INVENTION: Modified Dorsal Tissue Affecting Factor and Composition
; FILE REFERENCE: REG 133
; CURRENT APPLICATION NUMBER: US/08/897,236A
; CURRENT FILING DATE: 1997-07-17
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: Patent In Ver. 2.0
; SEQ ID NO 11
; LENGTH: 232
; TYPE: PRT
; ORGANISM: mouse
US-08-897-236-11

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Query Match      99.2%; Score 1258; DB 3; Length 232;
Best Local Similarity 99.1%; Pred. No. 3.5e-125;
Matches 230; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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RESULT 11
US-09-500-253B-23
; Sequence 23, Application US/09500253B
; Patent No. 6500640
; GENERAL INFORMATION:
; APPLICANT: Regeneron Pharmaceuticals, Inc.
; TITLE OF INVENTION: Modified Dorsal Tissue Affecting Factor and Composition
; FILE REFERENCE: REG 133-2
; CURRENT APPLICATION NUMBER: US/09/500,253B
; CURRENT FILING DATE: 2000-02-08
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 23
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Human
US-09-500-253B-23

Query Match          94.2%; Score 1195; DB 4; Length 449;
Best Local Similarity 94.8%; Pred. No. 4.1e-118;
Matches 220; Conservative 0; Mismatches 0; Indels 12; Gaps 1;

QY 1 MERCPSLGVTLYALVVLGLRATPAGQHYLHIRPAPSDNLPVLVDLIEHPDPIDPKED 60
Db 1 MERCPSLGVTLYALVVLGLRATPAGQHYLHIRPAPSDNLPVLVDLIEHPDPIDPKED 60
QY 61 LNETLRLSLGGHYDPGFNATSPEDRPGGGGAAGGAEDLAELDQLLRQPSGAMPSEI 120
Db 61 LNETLRLSLGGHYDPGFNATSPEDRPGGGGAAGGAEDLAELDQLLRQPSGAMPSEI 120
QY 121 KGLEFSEGLAQKKRLSKLRLQWLWSQTEPCVLYAWNDLGSFRFPRYKVGSCFS 180
Db 121 KGLEFSEGLAQK-----LQWLWSQTEPCVLYAWNDLGSFRFPRYKVGSCFS 168
QY 181 KRCSVPGEVMGPKSVHLTVLRWRCRRGQRCGWIPYIPISECKCSC 232
Db 169 KRCSVPGEVMGPKSVHLTVLRWRCRRGQRCGWIPYIPISECKCSC 220

RESULT 12
US-08-485-721-9
; Sequence 9, Application US/08485721
; Patent No. 5821124
; GENERAL INFORMATION:
; APPLICANT: Regeneron Pharmaceuticals, Inc. and
; APPLICANT: Regents of the University of California
; TITLE OF INVENTION: Dorsal Tissue Affecting Factor and
; TITLE OF INVENTION: Dorsal Tissue Affecting Factor and
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Regeneron Pharmaceuticals, Inc.
; STREET: 777 Old Saw Mill River Road
; CITY: Tarrytown
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10591
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/485,721
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/392,935
; FILING DATE: 02-SEP-1993
; APPLICATION NUMBER: PCT/US93/08326
; FILING DATE: 02-SEP-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Kempler Ph.D., Gail M.

Query Match          94.2%; Score 1195; DB 4; Length 449;
Best Local Similarity 94.8%; Pred. No. 4.1e-118;
Matches 220; Conservative 0; Mismatches 0; Indels 12; Gaps 1;

QY 1 MERCPSLGVTLYALVVLGLRATPAGQHYLHIRPAPSDNLPVLVDLIEHPDPIDPKED 60
Db 1 MERCPSLGVTLYALVVLGLRATPAGQHYLHIRPAPSDNLPVLVDLIEHPDPIDPKED 60
QY 61 LNETLRLSLGGHYDPGFNATSPEDRPGGGGAAGGAEDLAELDQLLRQPSGAMPSEI 120
Db 61 LNETLRLSLGGHYDPGFNATSPEDRPGGGGAAGGAEDLAELDQLLRQPSGAMPSEI 120
QY 121 KGLEFSEGLAQKKRLSKLRLQWLWSQTEPCVLYAWNDLGSFRFPRYKVGSCFS 180
Db 121 KGLEFSEGLAQK-----LQWLWSQTEPCVLYAWNDLGSFRFPRYKVGSCFS 168
QY 181 KRCSVPGEVMGPKSVHLTVLRWRCRRGQRCGWIPYIPISECKCSC 232
Db 169 KRCSVPGEVMGPKSVHLTVLRWRCRRGQRCGWIPYIPISECKCSC 220
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; REGISTRATION NUMBER: 32,143
; REFERENCE/DOCKET NUMBER: Reg 132
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 914-347-7000
; TELEFAX: 914-347-2113
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 222 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
US-08-485-721-9

Query Match          74.9%; Score 949.5; DB 2; Length 222;
Best Local Similarity 78.1%; Pred. No. 1.5e-92;
Matches 175; Conservative 17; Mismatches 23; Indels 9; Gaps 2;

QY 9 VTIYALVVLGLRATPAGQHYLHIRPAPSDNLPVLVDLIEHPDPIDPKEDLNETLLRS 68
Db 8 VTIYALVVLGLRATPAGQHYLHIRPAPSDNLPVLVDLIEHPDPIDPKEDLNETLLRT 67
QY 69 LLGGHYDPGFNATSPEDRPGGGGAAGGAEDLAELDQLLRQPSGAMPSEIKGLEFSE 128
Db 68 LMVGHEDPGFNATSPEDRPGGGGAAGGAEDLAELDQLLRQPSGAMPSEIKGLEFSE 119
QY 129 LAQGGKORLSKRLRRKLLQWLWSQTEPCVLYAWNDLGSFRFPRYKVGSCFSKRSCSVPE 188
Db 120 L-QSKHRLSKRLRRKLLQWLWSQTEPCVLYAWNDLGSFRFPRYKVGSCFSKRSCSVPE 178
QY 189 GMVCKPSKSVHLTVLRWRCRRGQRCGWIPYIPISECKCSC 232
Db 179 GMVCKAAKSMHLTVLRWRCRRGQRCGWIPYIPISECKCSC 222

RESULT 13
US-08-392-935-9
; Sequence 9, Application US/08392935
; Patent No. 5843775
; GENERAL INFORMATION:
; APPLICANT: Regeneron Pharmaceuticals, Inc. and
; APPLICANT: Regents of the University of California
; TITLE OF INVENTION: Dorsal Tissue Affecting Factor and
; TITLE OF INVENTION: Dorsal Tissue Affecting Factor and
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Regeneron Pharmaceuticals, Inc.
; STREET: 777 Old Saw Mill River Road
; CITY: Tarrytown
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10591
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/392,935
; FILING DATE:
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/US93/08326
; FILING DATE: 02-SEP-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Kempler Ph.D., Gail M.
; REGISTRATION NUMBER: 32,143
; REFERENCE/DOCKET NUMBER: Reg 132
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 914-347-7000
; TELEFAX: 914-347-2113
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 222 amino acids
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; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
US-08-392-935-9

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Best Local Similarity 78.1%; Pred. No. 1.5e-92;
Matches 175; Conservative 17; Mismatches 23; Indels 9; Gaps 2;

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QY 69 LLGHYDPGFMTATPPDRPGGGGAAGAEADLAELDOLLRQRPSPGAMPSEIKGLEFSEG 128
DQ 68 LMVGHDFDNFMTATILPEERL-----GVEDLGELDLLLRQKSPGAMPAEIKGLEFSEG 119

QY 129 LAQKKORLSKKLRKQLQMWLWSOTFCPLVLYANNDLGSREWPYRVYKVGSCFSKRSVPE 188
DQ 120 L-QSKKHRLSKKLRKQLQMWLWSOTFCPLVLYTNDLGTREWPYRVYKVGSCYSKRSVPE 178

QY 189 GMVCKPSKSVHLTVLRWCORRGQRCGWIPQIYPIISECKKSC 232
DQ 179 GMVCKAASKMHLTILRWCRQRRVQOKCAWITIYPIVISECKKSC 222

RESULT 14
PCT-US93-08326-9
; Sequence 9, Application PC/TUS9308326
; GENERAL INFORMATION:
; APPLICANT: Valenzuela, et al.
; TITLE OF INVENTION: Dorsal Tissue Affecting Factor and
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Regeneron Pharmaceuticals, Inc.
; STREET: 777 Old Saw Mill River Road
; CITY: Tarrytown
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10591
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US93/08326
; FILING DATE: 02-SEP-1993
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: Kempler Ph.D., Gail M.
; REGISTRATION NUMBER: 32,143
; REFERENCE/DOCKET NUMBER: Reg 132
; TELEPHONE: 914-347-7000
; TELEFAX: 914-347-2113
; INFORMATION FOR SEQ ID NO: 9:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 222 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
PCT-US93-08326-9

Query Match 74.9%; Score 949.5; DB 5; Length 222;
Best Local Similarity 78.1%; Pred. No. 1.5e-92;
Matches 175; Conservative 17; Mismatches 23; Indels 9; Gaps 2;

QY 9 VTLALVVLGLRATPAGGQHYLRPAPSDNPLVDLIEHPDPIDPKEDLNELTLRS 68
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QY 69 LLGHYDPGFMTATPPDRPGGGGAAGAEADLAELDOLLRQRPSPGAMPSEIKGLEFSEG 128
DQ 68 LMVGHDFDNFMTATILPEERL-----GVEDLGELDLLLRQKSPGAMPAEIKGLEFSEG 119

QY 129 LAQKKORLSKKLRKQLQMWLWSOTFCPLVLYANNDLGSREWPYRVYKVGSCFSKRSVPE 188
DQ 120 L-QSKKHRLSKKLRKQLQMWLWSOTFCPLVLYTNDLGTREWPYRVYKVGSCYSKRSVPE 178

QY 189 GMVCKPSKSVHLTVLRWCORRGQRCGWIPQIYPIISECKKSC 232
DQ 179 GMVCKAASKMHLTILRWCRQRRVQOKCAWITIYPIVISECKKSC 222

RESULT 15
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; Sequence 11, Application US/08485721
; Patent No. 5821124
; GENERAL INFORMATION:
; APPLICANT: Regeneron Pharmaceuticals, Inc. and
; APPLICANT: Regents of the University of California
; TITLE OF INVENTION: Dorsal Tissue Affecting Factor and
; TITLE OF INVENTION: Compositions
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Regeneron Pharmaceuticals, Inc.
; STREET: 777 Old Saw Mill River Road
; CITY: Tarrytown
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10591
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/485,721
; FILING DATE: 07-JUN-1995
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/392,935
; FILING DATE: 02-SEP-1993
; APPLICATION NUMBER: PCT/US93/08326
; FILING DATE: 02-SEP-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Kempler Ph.D., Gail M.
; REGISTRATION NUMBER: 32,143
; REFERENCE/DOCKET NUMBER: Reg 132
; TELEPHONE: 914-347-7000
; TELEFAX: 914-347-2113
; INFORMATION FOR SEQ ID NO: 11:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 87 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
US-08-485-721-11

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Best Local Similarity 98.9%; Pred. No. 7.6e-46;
Matches 86; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

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DQ 1 QMWLWSOTFCPLVLYANNDLGSREWPYRVYKVGSCFSKRSVPEGMVCKPSKSVHLTVLRW 60

QY 206 RCORRGQRCGWIPQIYPIISECKKSC 232
DQ 61 RCORRGQRCGWIPQIYPIISECKKSC 87

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Job time : 19 secs

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GenCore version 5.1.6  
Copyright (c) 1993 - 2003 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: July 24, 2003, 13:20:01 ; Search time 52 Seconds  
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529.851 Million cell updates/sec

Title: US-09-897-322-2

Perfect score: 1268

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Searched: 451899 seqs, 118759770 residues

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Minimum DB seq length: 0

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Maximum Match 100%

Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
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2	1268	100.0	232	14	US-10-044-716-4
3	1268	100.0	232	16	US-10-323-268-2
4	1258	99.2	232	10	US-09-897-322-11
5	1258	99.2	232	14	US-10-044-716-6
6	1258	99.2	232	16	US-10-323-268-11
7	1195	94.2	449	16	US-10-323-268-23
8	90.5	7.1	623	10	US-09-854-731-4
9	88.5	7.0	979	10	US-09-884-001-4
10	87.5	6.9	1368	15	US-10-159-151-2
11	87	6.9	14	10	US-09-897-322-3
12	87	6.9	14	16	US-10-323-268-3
13	86.5	6.8	939	9	US-09-854-845-16
14	86.5	6.8	934	9	US-09-854-845-14
15	86.5	6.8	1034	9	US-09-854-845-6

16	86.5	6.8	1049	9	US-09-854-845-2	Sequence 2, Appli
17	86.5	6.8	1078	9	US-09-854-845-8	Sequence 8, Appli
18	86.5	6.8	1092	15	US-10-245-103-96	Sequence 96, Appli
19	86.5	6.8	1092	15	US-10-245-107-96	Sequence 96, Appli
20	86.5	6.8	1092	15	US-10-245-143-96	Sequence 96, Appli
21	86.5	6.8	1092	15	US-10-245-771-96	Sequence 96, Appli
22	86.5	6.8	1092	15	US-10-245-851-96	Sequence 96, Appli
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36	86.5	6.8	1092	15	US-10-245-621-96	Sequence 96, Appli
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38	86.5	6.8	1092	15	US-10-245-033-96	Sequence 96, Appli
39	86.5	6.8	1092	15	US-10-243-095-96	Sequence 96, Appli
40	86.5	6.8	1092	15	US-10-245-185-96	Sequence 96, Appli
41	86.5	6.8	1092	15	US-10-245-427-96	Sequence 96, Appli
42	86.5	6.8	1092	15	US-10-245-473-96	Sequence 96, Appli
43	86.5	6.8	1092	15	US-10-245-770-96	Sequence 96, Appli
44	86.5	6.8	1092	15	US-10-245-877-96	Sequence 96, Appli
45	86.5	6.8	1092	15	US-10-246-976-96	Sequence 96, Appli

ALIGNMENTS

RESULT 1  
US-09-897-322-2  
; Sequence 2, Application US/09897322  
; Patent No. US20020102643A1  
; GENERAL INFORMATION:  
; APPLICANT: Valenzuela et al.  
; TITLE OF INVENTION: DORSAL TISSUE AFFECTING FACTOR AND COMPOSITIONS  
; FILE REFERENCE: REG132-B  
; CURRENT APPLICATION NUMBER: US/09/897,322  
; CURRENT FILING DATE: 2001-07-02  
; PRIOR APPLICATION NUMBER: 09/167,874  
; PRIOR FILING DATE: 1998-10-07  
; PRIOR APPLICATION NUMBER: 08/485,721  
; PRIOR FILING DATE: 1995-07-06  
; PRIOR APPLICATION NUMBER: 08/392,935  
; PRIOR FILING DATE: 1995-09-22  
; PRIOR APPLICATION NUMBER: PCT/US93/08326  
; PRIOR FILING DATE: 1993-09-02  
; PRIOR APPLICATION NUMBER: 07/957,401  
; PRIOR FILING DATE: 1992-10-06  
; PRIOR APPLICATION NUMBER: 07/950,410  
; PRIOR FILING DATE: 1992-09-23  
; PRIOR APPLICATION NUMBER: 07/939,954  
; PRIOR FILING DATE: 1992-09-03  
; NUMBER OF SEQ ID NOS: 22  
; SOFTWARE: PatentIn Ver. 2.0  
; SEQ ID NO 2  
; LENGTH: 232  
; TYPE: PRT  
; ORGANISM: Homo sapiens  
US-09-897-322-2

Query Match 100.0%; Score 1268; DB 10; Length 232;  
Best Local Similarity 100.0%; Pred. No. 3.5e-115;  
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Db 61 LNETLLRSLLGGHYDPGMATSPEDRPGGGGGAAGGAEDLAELDQLLRQPSGAMPSEI 120
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Db 121 KGLEFSEGLAQGKKORLSKKLRKQLMWLWSQTFPCPVLYAWNDLGSFWRPVRVYKVGSCFS 180
QY 181 KRCSVPPEGMVCKPSKSVHLTVLRWRCORRGCGRCGWIPIQYPII SECKCSC 232
Db 181 KRCSVPPEGMVCKPSKSVHLTVLRWRCORRGCGRCGWIPIQYPII SECKCSC 232

RESULT 2
US-10-044-716-4
; Sequence 2, Application US/10044716
; Publication No. US20020159986A1
; GENERAL INFORMATION:
; APPLICANT: LANGENFELD, John
; TITLE OF INVENTION: BONE MORPHOGENETIC PROTEIN-2 IN THE TREATMENT AND DIAGNOSIS OF CA
; FILE REFERENCE: 270/07005
; CURRENT APPLICATION NUMBER: US/10/044,716
; PRIOR FILING DATE: 2002-01-11
; PRIOR APPLICATION NUMBER: US60/261,252
; PRIOR FILING DATE: 2001-01-12
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 4
; LENGTH: 232
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-044-716-4

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Db 181 KRCSVPPEGMVCKPSKSVHLTVLRWRCORRGCGRCGWIPIQYPII SECKCSC 232

RESULT 3
US-10-323-268-2
; Sequence 2, Application US/10323268
; Publication No. US20030129703A1
; GENERAL INFORMATION:
; APPLICANT: Regeneron Pharmaceuticals, Inc.
; TITLE OF INVENTION: Modified Dorsal Tissue Affecting Factor and Composition
; FILE REFERENCE: REG 133-Z
; CURRENT APPLICATION NUMBER: US/10/323,268
; CURRENT FILING DATE: 2002-12-19
; PRIOR APPLICATION NUMBER: US/09/500,253
; PRIOR FILING DATE: 2000-02-08
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 2
; LENGTH: 232
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; ORGANISM: human
US-10-323-268-2

Query Match 100.0%; Score 1268; DB 16; Length 232;
Best Local Similarity 100.0%; Pred. No. 3.5e-115;
Matches 232; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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QY 61 LNETLLRSLLGGHYDPGMATSPEDRPGGGGGAAGGAEDLAELDQLLRQPSGAMPSEI 120
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RESULT 4
US-09-897-322-11
; Sequence 11, Application US/09897322
; Patent No. US20020102843A1
; GENERAL INFORMATION:
; APPLICANT: Valenzuela et al.
; TITLE OF INVENTION: DORSAL TISSUE AFFECTING FACTOR AND COMPOSITIONS
; FILE REFERENCE: REG132-B
; CURRENT APPLICATION NUMBER: US/09/897,322
; CURRENT FILING DATE: 2001-07-02
; PRIOR APPLICATION NUMBER: 09/167,874
; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 08/485,721
; PRIOR FILING DATE: 1995-07-06
; PRIOR APPLICATION NUMBER: 08/392,935
; PRIOR FILING DATE: 1995-09-22
; PRIOR APPLICATION NUMBER: PCT/US93/08326
; PRIOR FILING DATE: 1993-09-02
; PRIOR APPLICATION NUMBER: 07/957,401
; PRIOR FILING DATE: 1992-10-06
; PRIOR APPLICATION NUMBER: 07/950,410
; PRIOR FILING DATE: 1992-09-23
; PRIOR APPLICATION NUMBER: 07/939,954
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 11
; LENGTH: 232
; TYPE: PRT
; ORGANISM: mouse
US-09-897-322-11

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Best Local Similarity 99.1%; Pred. No. 3.3e-114;
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; Sequence 6, Application US/10044716
; Publication No. US20020159986A1
; GENERAL INFORMATION:
; APPLICANT: LANGENFELD, John
; TITLE OF INVENTION: BONE MORPHOGENETIC PROTEIN-2 IN THE TREATMENT AND DIAGNOSIS OF CA
; FILE REFERENCE: 270/070US
; CURRENT APPLICATION NUMBER: US/10/044,716
; CURRENT FILING DATE: 2002-01-11
; PRIOR APPLICATION NUMBER: US60/261,252
; PRIOR FILING DATE: 2001-01-12
; NUMBER OF SEQ ID NOS: 16
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 232
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-044-716-6

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Best Local Similarity 99.1%; Pred. No. 3.3e-114;
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Db 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPIQYPIISECKKSC 232

RESULT 6
US-10-323-268-11
; Sequence 11, Application US/10323268
; Publication No. US20030129703A1
; GENERAL INFORMATION:
; APPLICANT: Regeneron Pharmaceuticals, Inc.
; TITLE OF INVENTION: Modified Dorsal Tissue Affecting Factor and Composition
; FILE REFERENCE: REG 133-Z
; CURRENT APPLICATION NUMBER: US/10/323,268
; CURRENT FILING DATE: 2002-12-19
; PRIOR APPLICATION NUMBER: US/09/500,253
; PRIOR FILING DATE: 2000-02-08
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 11
; LENGTH: 232
; TYPE: PRT
; ORGANISM: Mouse
US-10-323-268-11

Query Match 99.2%; Score 1258; DB 16; Length 232;
Best Local Similarity 99.1%; Pred. No. 3.3e-114;
Matches 230; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

QY 1 MERCPISLGVTLVYALVVLGLRATPAGGQHYLHTRPAPSDNPLVLDLIEHPDPIFDPKED 60
Db 1 MERCPISLGVTLVYALVVLGLRAAPAGGQHYLHTRPAPSDNPLVLDLIEHPDPIFDPKED 60
QY 61 LNETLLRSLLGGHYDPGFMATSPEDRPGGGGAGGAEDLAELDQLLRORPSGAMPSEI 120
Db 61 LNETLLRSLLGGHYDPGFMATSPEDRPGGGGAGGAEDLAELDQLLRORPSGAMPSEI 120
QY 121 KGLEFSEGLAOGKKQRLSKLRKQWMLWSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
Db 121 KGLEFSEGLAOGKKQRLSKLRKQWMLWSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
QY 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPIQYPIISECKKSC 232
Db 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPIQYPIISECKKSC 232

RESULT 7
US-10-323-268-23
; Sequence 23, Application US/10323268
; Publication No. US20030129703A1
; GENERAL INFORMATION:
; APPLICANT: Regeneron Pharmaceuticals, Inc.
; TITLE OF INVENTION: Modified Dorsal Tissue Affecting Factor and Composition
; FILE REFERENCE: REG 133-Z
; CURRENT APPLICATION NUMBER: US/10/323,268
; CURRENT FILING DATE: 2002-12-19
; PRIOR APPLICATION NUMBER: US/09/500,253
; PRIOR FILING DATE: 2000-02-08
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 23
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Human
US-10-323-268-23

Query Match 94.2%; Score 1195; DB 16; Length 449;
Best Local Similarity 94.8%; Pred. No. 9.8e-108;
Matches 220; Conservative 0; Mismatches 0; Indels 12; Gaps 1;

QY 1 MERCPISLGVTLVYALVVLGLRATPAGGQHYLHTRPAPSDNPLVLDLIEHPDPIFDPKED 60
Db 1 MERCPISLGVTLVYALVVLGLRATPAGGQHYLHTRPAPSDNPLVLDLIEHPDPIFDPKED 60
QY 61 LNETLLRSLLGGHYDPGFMATSPEDRPGGGGAGGAEDLAELDQLLRORPSGAMPSEI 120
Db 61 LNETLLRSLLGGHYDPGFMATSPEDRPGGGGAGGAEDLAELDQLLRORPSGAMPSEI 120
QY 121 KGLEFSEGLAOGKKQRLSKLRKQWMLWSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
Db 121 KGLEFSEGLAOGKKQRLSKLRKQWMLWSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
QY 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPIQYPIISECKKSC 232
Db 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPIQYPIISECKKSC 232

RESULT 8
US-09-854-731-4
; Sequence 4, Application US/09854731
; Patent No. US20020120949A1
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Lee, Jian Ming
; TITLE OF INVENTION: Plant Protein Kinases
; FILE REFERENCE: BB-1171
; CURRENT APPLICATION NUMBER: US/09/854,731
; CURRENT FILING DATE: 2001-05-14
; PRIOR APPLICATION NUMBER: 60/092,438
; PRIOR FILING DATE: July 10, 1998
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 4
; LENGTH: 623
; TYPE: PRT
; ORGANISM: Oryza sativa
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QY 61 LNETLLRSLLGGHYDPGFMATSPEDRPGGGGAGGAEDLAELDQLLRORPSGAMPSEI 120
Db 61 LNETLLRSLLGGHYDPGFMATSPEDRPGGGGAGGAEDLAELDQLLRORPSGAMPSEI 120
QY 121 KGLEFSEGLAOGKKQRLSKLRKQWMLWSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
Db 121 KGLEFSEGLAOGKKQRLSKLRKQWMLWSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
QY 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPIQYPIISECKKSC 232
Db 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPIQYPIISECKKSC 232

RESULT 7
US-10-323-268-23
; Sequence 23, Application US/10323268
; Publication No. US20030129703A1
; GENERAL INFORMATION:
; APPLICANT: Regeneron Pharmaceuticals, Inc.
; TITLE OF INVENTION: Modified Dorsal Tissue Affecting Factor and Composition
; FILE REFERENCE: REG 133-Z
; CURRENT APPLICATION NUMBER: US/10/323,268
; CURRENT FILING DATE: 2002-12-19
; PRIOR APPLICATION NUMBER: US/09/500,253
; PRIOR FILING DATE: 2000-02-08
; NUMBER OF SEQ ID NOS: 27
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 23
; LENGTH: 449
; TYPE: PRT
; ORGANISM: Human
US-10-323-268-23

Query Match 94.2%; Score 1195; DB 16; Length 449;
Best Local Similarity 94.8%; Pred. No. 9.8e-108;
Matches 220; Conservative 0; Mismatches 0; Indels 12; Gaps 1;

QY 1 MERCPISLGVTLVYALVVLGLRATPAGGQHYLHTRPAPSDNPLVLDLIEHPDPIFDPKED 60
Db 1 MERCPISLGVTLVYALVVLGLRATPAGGQHYLHTRPAPSDNPLVLDLIEHPDPIFDPKED 60
QY 61 LNETLLRSLLGGHYDPGFMATSPEDRPGGGGAGGAEDLAELDQLLRORPSGAMPSEI 120
Db 61 LNETLLRSLLGGHYDPGFMATSPEDRPGGGGAGGAEDLAELDQLLRORPSGAMPSEI 120
QY 121 KGLEFSEGLAOGKKQRLSKLRKQWMLWSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
Db 121 KGLEFSEGLAOGKKQRLSKLRKQWMLWSQTFPCVLYAWNDLGSFRFPRYVKVGSCTS 180
QY 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPIQYPIISECKKSC 232
Db 181 KRSCSVPEGMVCKPSKSVHLTVLRWRCORRGQRCGWIPIQYPIISECKKSC 232

RESULT 8
US-09-854-731-4
; Sequence 4, Application US/09854731
; Patent No. US20020120949A1
; GENERAL INFORMATION:
; APPLICANT: Allen, Steve
; APPLICANT: Lee, Jian Ming
; TITLE OF INVENTION: Plant Protein Kinases
; FILE REFERENCE: BB-1171
; CURRENT APPLICATION NUMBER: US/09/854,731
; CURRENT FILING DATE: 2001-05-14
; PRIOR APPLICATION NUMBER: 60/092,438
; PRIOR FILING DATE: July 10, 1998
; NUMBER OF SEQ ID NOS: 23
; SOFTWARE: Microsoft Office 97
; SEQ ID NO 4
; LENGTH: 623
; TYPE: PRT
; ORGANISM: Oryza sativa
```



; SEQ ID NO 3  
; LENGTH: 14  
; TYPE: PRT  
; ORGANISM: frog and mouse  
US-09-897-322-3

Query Match  
Best Local Similarity 6.9%; Score 87; DB 10; Length 14;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 146 QMWLSQTFCPVLY 159  
Db 1 QMWLSQTFCPVLY 14

## RESULT 12

US-10-323-268-3  
; Sequence 3, Application US/10323268  
; Publication No. US20030129703A1  
; GENERAL INFORMATION:  
; APPLICANT: Regeneron Pharmaceuticals, Inc.  
; TITLE OF INVENTION: Modified Dorsal Tissue Affecting Factor and Composition  
; FILE REFERENCE: REG 133-Z  
; CURRENT APPLICATION NUMBER: US/10/323,268  
; PRIOR FILING DATE: 2002-12-19  
; PRIOR APPLICATION NUMBER: US/09/500,253  
; PRIOR FILING DATE: 2000-02-08  
; NUMBER OF SEQ ID NOS: 27  
; SOFTWARE: PatentIn version 3.0  
; SEQ ID NO 3  
; LENGTH: 14  
; TYPE: PRT  
; ORGANISM: frog and mouse  
US-10-323-268-3

Query Match  
Best Local Similarity 6.9%; Score 87; DB 16; Length 14;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 146 QMWLSQTFCPVLY 159  
Db 1 QMWLSQTFCPVLY 14

## RESULT 13

US-09-854-845-16  
; Sequence 16, Application US/09854845  
; Patent No. US20020098491A1  
; GENERAL INFORMATION:  
; APPLICANT: Walke, D. Wade  
; APPLICANT: Wang, Xiaoming  
; APPLICANT: Scoville, John  
; APPLICANT: Turner, C. Alexander Jr.  
; TITLE OF INVENTION: No. US20020098491A1 Human Semaphorin Homologs and Polynucleotides  
; FILE REFERENCE: LEX-0177-USA  
; CURRENT APPLICATION NUMBER: US/09/854,845  
; PRIOR FILING DATE: 2001-05-14  
; PRIOR APPLICATION NUMBER: US 60/205,274  
; PRIOR FILING DATE: 2000-05-18  
; PRIOR APPLICATION NUMBER: US 60/208,893  
; PRIOR FILING DATE: 2000-06-02  
; NUMBER OF SEQ ID NOS: 50  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 16  
; LENGTH: 939  
; TYPE: PRT  
; ORGANISM: homo sapiens  
US-09-854-845-16

Query Match  
Best Local Similarity 6.8%; Score 86.5; DB 9; Length 939;  
Matches 35; Conservative 10; Mismatches 44; Indels 27; Gaps 9;

QY 132 GKQRLSKLRRKLQMWLSQ--TFCPVLYAWNDLGSRFWRVY-----KVGSCFSK 181  
Db 380 GKQRCSTLEDSSNMSLWNTQNTACPVNRVTRDGGFGPWSWPQCEHLDDGNSGSLCR 438  
QY 182 -RCSVPE---GMVCKPSKSVHLTVLRWCQRRCGRCGWIPQIPIIIECKKSC 232  
Db 439 ARSCDSPRRCGGDLCL-GPAIHIA-----NCSRNG----AWTP--WSSWALCSTSC 483

## RESULT 14

US-09-854-845-14  
; Sequence 14, Application US/09854845  
; Patent No. US20020098491A1  
; GENERAL INFORMATION:  
; APPLICANT: Walke, D. Wade  
; APPLICANT: Wang, Xiaoming  
; APPLICANT: Scoville, John  
; APPLICANT: Turner, C. Alexander Jr.  
; TITLE OF INVENTION: No. US20020098491A1 Human Semaphorin Homologs and Polynucleotides  
; FILE REFERENCE: LEX-0177-USA  
; CURRENT APPLICATION NUMBER: US/09/854,845  
; PRIOR FILING DATE: 2001-05-14  
; PRIOR APPLICATION NUMBER: US 60/205,274  
; PRIOR FILING DATE: 2000-05-18  
; PRIOR APPLICATION NUMBER: US 60/208,893  
; PRIOR FILING DATE: 2000-06-02  
; NUMBER OF SEQ ID NOS: 50  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 14  
; LENGTH: 954  
; TYPE: PRT  
; ORGANISM: homo sapiens  
US-09-854-845-14

Query Match  
Best Local Similarity 6.8%; Score 86.5; DB 9; Length 954;  
Matches 35; Conservative 10; Mismatches 44; Indels 27; Gaps 9;

QY 132 GKQRLSKLRRKLQMWLSQ--TFCPVLYAWNDLGSRFWRVY-----KVGSCFSK 181  
Db 380 GKQRCSTLEDSSNMSLWNTQNTACPVNRVTRDGGFGPWSWPQCEHLDDGNSGSLCR 438  
QY 182 -RCSVPE---GMVCKPSKSVHLTVLRWCQRRCGRCGWIPQIPIIIECKKSC 232  
Db 439 ARSCDSPRRCGGDLCL-GPAIHIA-----NCSRNG----AWTP--WSSWALCSTSC 483

## RESULT 15

US-09-854-845-6  
; Sequence 6, Application US/09854845  
; Patent No. US20020098491A1  
; GENERAL INFORMATION:  
; APPLICANT: Walke, D. Wade  
; APPLICANT: Wang, Xiaoming  
; APPLICANT: Scoville, John  
; APPLICANT: Turner, C. Alexander Jr.  
; TITLE OF INVENTION: No. US20020098491A1 Human Semaphorin Homologs and Polynucleotides  
; FILE REFERENCE: LEX-0177-USA  
; CURRENT APPLICATION NUMBER: US/09/854,845  
; PRIOR FILING DATE: 2001-05-14  
; PRIOR APPLICATION NUMBER: US 60/205,274  
; PRIOR FILING DATE: 2000-05-18  
; PRIOR APPLICATION NUMBER: US 60/208,893  
; PRIOR FILING DATE: 2000-06-02  
; NUMBER OF SEQ ID NOS: 50  
; SOFTWARE: FastSeq for Windows Version 4.0  
; SEQ ID NO 6  
; LENGTH: 1034  
; TYPE: PRT  
; ORGANISM: homo sapiens  
US-09-854-845-6

Query Match  
Best Local Similarity 6.8%; Score 86.5; DB 9; Length 1034;

Best Local Similarity 30.2%; Pred. No. 12;  
Matches 35; Conservative 10; Mismatches 44; Indels 27; Gaps 9;  
QY 132 GKORLSKKLRKQLQMWLWQ--TFCPVLYAWNDLGSFWRPVV-----KVGSCFSK 181  
Db 475 GKQQRCS-TLEDSSNMSLWNTITACPVNRVTRDGGFGPWSWPQCEHLGDGDSGSCLCR 533  
QY 182 -RSCSVPE-----GMVCKFKSVHLLVLRWRCQRRGQRCGWIPYPIISECKCSC 232  
Db 534 ARSCDPRPRCGGLDCL-GPAIHIA----NCSRNG----AWTP--WSSWALCSTSC 578

Search completed: July 24, 2003, 13:31:07  
Job time : 53 secs